Strawman Outline for Developing the GRSMMP

Introduction: The Gulf states have acknowledged that sediment resources are integral to accomplishing many Alliance restoration objectives. They also acknowledged a need for a better understanding of regional sediment systems and processes to inform restoration project decisions as well as for considering the effects of actions on regional sediment regimes. The Governors' Action Plan identifies development of a Gulf Region Sediment Management Master Plan as an implementation action for the Conservation and Restoration Workgroup.

Objectives/Purpose: To develop a Gulf of Mexico Regional Sediment Management Master Plan, that uses the understanding of sediment dynamics (inputs, outputs, movement) to manage sediment resources to accomplish environmental restoration, conservation, and preservation, while reducing coastal erosion and coastal storm damages and associated costs of sediment management.

The Plan will provide a basis for linking sources of sediment with sediment needs, assessing competing needs for sediment, fostering more cost effective sediment management, and for developing regional strategies for sediment management that:

- make more effective use of sediment from inlets, navigation channels and other sources in support of environmental and economic objectives
- coordinate the collection and dissemination of data about the movement of sediment to better integrate the understanding of regional sediment process into planning, management and other decisions,
- facilitate cooperation among states, federal agencies, and other stakeholders in sediment management.

Initial Tasks:

Phase 1 –Base Conditions

1) Identify priority sediment needs by state:

a) Where is sediment currently needed? (Identify by county or parish. State "not known" or TBD if no information is available.)
b) What quantity of sediment is needed for the stated purpose?
c) What are the general characteristics of the sediment resources needed?(sand, silt or clay)
 - how does it fit into the regional processes.
d) Identify potential design or construction considerations or needs for the sediment use –How will the sediment behave once placed? Will it settle? Will it need to be secured?
 - Will there be any other associated modifications or structures needed in conjunction with the placement and use of the sediment.
e) Identify restrictions on placing sediment (Environmental, Economic, Regulatory etc.)
f) Describe/identify other projects or programs in the same sediment system that should be considered when planning for future sediment uses.
g) Identify anticipated future sediment needs.

2) Identify known potential sediment sources within each state and elsewhere.

a) Location of sediment resources
b) Quantity of material
c) Sediment resource characteristics (Sand, silt, mixed, unknown)
d) Can actions be taken to modify the existing sedimentation patterns?
   - promote sedimentation where desired
   - discourage sedimentation where not wanted
e) Potential use suitability of the sediment resources
f) Current uses of the sediment source if any and by whom.
g) Use constraints (Environmental, Economic, Safety, Regulatory, existing authorities, policy, etc.)

3) Identify available sediment resource data by state, and anticipated data needs from federal agencies and other sources to contribute to a linkable, central database.

a) Beneficial Use locations
b) Sediment Characteristics
   - Grain Size Data
   - Color
   - Composition
c) Sampling data
   - vibracore data
   - beach sampling data
   - acoustic data
d) Dredge data (quantities, frequencies, locations etc.)
e) Develop a list sediment resource information databases and GIS – state and federal – this information will be used to discuss alternatives for sediment data and information management to support the GRSMMP objectives

4) Identify existing sediment budgets and the reaches and timeframes they cover.

a) For each sub-region with a sediment budget, describe implications of erosion, deposition or other factors on environmental conservation, habitat restoration planning and design, or sediment management objectives.
b) Develop a framework for integrating future sediment budgets as they become available.
c) Identify areas/regions where budgets require refinement or areas where budgets do not exist.
d) Information needs to create or refine budgets

5) Identify policy and institutional opportunities for improving regional sediment management in the Gulf

a) Develop/suggest potential streamlining of regulatory processes to consider beneficial uses for existing projects

b) Identify policy impediments to implementing regional sediment management in the Gulf – including inter-state sediment management options within a sub-region
c) Identify potential opportunities for and impediments to leveraging resources for implementing the GRSMMP.
d) Identify needs and opportunities for increasing stakeholder participation in development and implementation of sediment management strategies.
e) Identify best management practices for managing sediment resources that minimize secondary adverse impacts; create a protocol toward BMPs

Phase 2 – Implementation

6) After identifying sediment needs and sources

a) Develop a plan that will match sediment sources to sediment needs
b) Develop a plan to ensure appropriate and fair distribution of sediment to all interested projects/parties while addressing all scientific needs stated below.
c) Scientific Placement Concerns
    i) Introducing invasive species
    ii) Introducing pollutants or nutrients which could cause other problems
    iii) Ensure that the material is appropriate for the natural system
    iv) Ensure material will be secured into area needed and not washed away
    v) Monitor effects on the regional sediment processes
        - does the action modify existing processes that may result in undesirable effects elsewhere?
d) Break out policy, regulatory, economical and environmental issues, which restrict the retrieval or placement of the sediment source, into segments and develop strategies to implement change.
e) Determine the best (most economical, environmentally friendly, timely) way to transport the sediment.
    - consider environmental constraints and windows of opportunity
f) Incorporate sediment budgets to determine long term impacts of placing and retrieving sediment.
g) Identify ways to track and quantify environmental and recreational benefits to increase awareness and promote the utilization of sediments beneficially in the future.

7) Identify needed programs and technology to expand sediment identification, exploration and placement.

a) Implement Dredging plans which allow sediments to be matched with a use.
b) Offshore exploration – State of the art acoustic remote sensing equipments
c) Permanent pipeline infrastructure to transport sediment
d) Utilizing Diversions structures or other structures already in place that could transport sediments.
e) What other scientific data is needed to further Regional Sediment Management?
f) Search for innovative technologies that promote beneficial use